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EXAMINER				
FRIEDHOFFER, MICHAEL A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,476

Applicant(s)

RANGE, JURGEN

Examiner

Michael A. Friedhofer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 and 30-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 30-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/4/05 & 5/26/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 112

2. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 1-2 the phrase "particularly washing machine, ..." creates a limitation within a limitation making the claim indefinite.

In claim 1, lines 4-5 "the user" has no antecedent basis.

In claim 1, line 6 "control device" has no antecedent basis.

In claim 1, line 7 "the display device" has no antecedent basis.

In claim 1, lines 9-10 "the transillumination area" has no antecedent basis.

In claim 1, line 10 "the light source" has no antecedent basis.

In claim 2, line 2 "the light source" has no antecedent basis.

In claim 2, line 2 "the back" has no antecedent basis.

In claim 2, lines 2-3 "the control device" has no antecedent basis.

In claim 2, line 3 "the transillumination area" has no antecedent basis.

In claim 4, line 2 "the transillumination area" has no antecedent basis.

In claim 4, line 3 "the control device" has no antecedent basis.

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In claim 4, line 4 "the manufacture" and "the control device" have no antecedent basis.

In claim 6, lines 2-3 "the transillumination area" has no antecedent basis.

In claim 7, lines 2-3 "the control device" has no antecedent basis.

In claim 7, line 3 "the vicinity" and "the display device" have no antecedent basis.

In claim 7, line 3 "and/or" is an improper form of the alternative making the claim indefinite.

In claim 8, lines 2-3 "the control device" has no antecedent basis.

In claim 8, line 3 "the vicinity" and "the transillumination area" have no antecedent basis.

In claim 8, line 3 "and/or" is an improper form of the alternative making the claim indefinite.

In claim 8, line 4 "the light source" has no antecedent basis.

In claim 9, line 2 "the control device back" has no antecedent basis.

In claim 9, line 3 "the light source" and "the transillumination area" have no antecedent basis.

In claim 10, line 3 "the light source" has no antecedent basis.

In claim 11, lines 3-4 "the vicinity" has no antecedent basis.

In claim 12, line 3 "the transillumination area" has no antecedent basis.

In claim 14, line 2 it is unclear whether this "at least one device" is the same or related to the ones already claimed.

In claim 15, line 2 "the light-varying or light-conducting device" has no antecedent basis.

In claim 15, line 3 "the control device" has no antecedent basis.

In claim 15, line 4 "the transillumination area" has no antecedent basis.

In claim 16, line 2 "the light-varying or light-conducting device" has no antecedent basis.

In claim 16, line 3 "the control device" has no antecedent basis.

In claim 17, line 2 "the transillumination area" has no antecedent basis.

In claim 17, lines 2-3 "the control device" has no antecedent basis.

In claim 17, line 3 "the form" has no antecedent basis.

In claim 18, line 2 "the light source" has no antecedent basis.

In claim 19, line 2 "the transillumination area" has no antecedent basis.

In claim 20, lines 3-4 "the transillumination area" has no antecedent basis.

In claim 20, line 4 "preferably the sensor device ..." creates a limitation within a limitation making the claim indefinite.

In claim 21, line 3 "the transillumination area" has no antecedent basis.

In claim 22, line 3 the phrase "in particular" creates a limitation within a limitation making the claim indefinite.

In claim 22, line 4 the phrase "such as" creates a limitation within a limitation making the claim indefinite.

In claim 22, line 5 the phrase "or the like" is vague and indefinite.

In claim 23, line 2 "the control device" has no antecedent basis.

In claim 23, line 3 "e.g. a panel" creates a limitation within a limitation making the claim indefinite.

In claim 23, line 3 "the control or operation" has no antecedent basis.

In claim 23, line 4 "the direction" has no antecedent basis.

In claim 23, line 4 "and/or" is an improper form of the alternative making the claim indefinite.

In claim 23, line 5 "the movement" has no antecedent basis.

In claim 24, line 2 "the control device" has no antecedent basis.

In claim 24, line 3 "the side" has no antecedent basis.

In claim 25, line 2 "the control device" has no antecedent basis.

In claim 25, line 3 "the side" has no antecedent basis.

In claim 25, line 3 the phrase "preferably a push button" creates a limitation within a limitation making the claim indefinite.

In claim 26, line 2 "the light source" has no antecedent basis.

In claim 26, line 3 "the control device" has no antecedent basis.

In claim 27, line 2 "the light source" has no antecedent basis.

In claim 27, line 3 "the control device" has no antecedent basis.

In claim 27, line 3 "preferably with ..." creates a limitation within a limitation making the claim indefinite.

In claim 27, line 4 "the light source" and "the transillumination area" have no antecedent basis.

In claim 27, line 4 "in particular" creates a limitation within a limitation making the claim indefinite.

In claim 28, line 2 the phrase "particularly to ..." creates a limitation within a limitation making the claim indefinite.

In claim 28, line 4 "the standard thickness" has no antecedent basis.

In claim 28, line 5 "the user" has no antecedent basis.

In claim 28, line 7 "the transillumination area" has no antecedent basis.

In claim 28, line 8 "the back" has no antecedent basis.

In claim 32, line 2 "the transillumination area" has no antecedent basis.

In claim 33, line 2 "the transillumination area" has no antecedent basis.

In claim 35, lines 1-2 "the case" has no antecedent basis.

In claim 35, line 2 "the light source" has no antecedent basis.

In claim 35, lines 2-3 "the transillumination area" has no antecedent basis.

In claim 36, lines 1-2 "the light-varying or light-conducting device" has no antecedent basis.

In claim 37, line 2 "the form" has no antecedent basis.

In claim 39, lines 1-2 "the control device" has no antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 4-8, 12, 14, 15, 17-23, 25, 26, 28, 31-33, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Norris et al.

Norris et al discloses in the figures a domestic electrical appliance including at least one control device 10 with at least one display device associated with a light source 44 formed by an LED for providing visual information to the user. The at least one control device 10 including a covering material 30 which for a standard material thickness is substantially opaque and in an area provided for the display device has at least one transillumination area 32 in which the material thickness of the covering material is so reduced compared with the standard material thickness that the transillumination area can be transilluminated by the light of the light sources. The light source is positioned at the back of the control device facing the transillumination area. The transillumination area of the control device is produced by injection molding. The standard material thickness is at least 2 mm and the thickness in the transillumination area is between approximately .3 mm and approximately .5 mm. The user-facing front surface of the device is closed and substantially smooth in the vicinity of the display device. Visible markings are providing on a face of the transillumination area and can be formed by multiple segments. The transillumination area includes additional light-varying or light-conducting devices or light guides 42 which may have concentrators, deflectors, lenses, etc. The light guide is fixed in a non-detachable manner with the control device close to or directly at the transillumination area. The control device is a push button in which the contacts

may be considered sensor elements such that they can be considered to at least zonally surround the transillumination area. The control devices form a panel fixed to the domestic appliance such that the covering material is the panel material and for control purposes there are further actuating devices. The control or operation of the appliance is determined by the direction and/or extent of the movement of the control device. The light source may be considered to at least partly project into the control device. As for the sensor devices being capacitive sensor, this is a matter of engineering design choice, in which the switch closing whether resistive, magnetic, capacitive, or contacts, would not alter the switch operation, structure of the covering, or purpose of the control.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris et al in view of Parker et al.

Norris et al discloses all of the claimed limitations with the exception of the macroscopic surface structuring in the transillumination area.

Parker et al teaches a transillumination area having a macroscopic surface 48 formed by a plurality of grooves and raised portions for scattering the light of the light source.

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It would have been obvious to one of ordinary skill in the art to apply the teachings of Parker et al to Norris et al to providing a macroscopic surface formed by a plurality of grooves and raised portions within the transillumination area because this is for scattering the light from the light source providing a more evenly distributed light throughout the transillumination area.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norris et al in view of Demeo.

Norris et al discloses all of the claimed limitations with the exception of the devices being colored.

Demeo teaches the use of various methods of light distribution including light scattering, deflectors, and the use of color and colored lights.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Demeo to Norris et al to utilize color as part of the display because this is for the purpose of providing another method of differentiating between the various control devices in the panel.

8. Claims 1, 12, 16, 24, 27, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al in view of Norris et al.

Liao et al discloses a control device formed by a rotary switch including a plurality of light pipes 10; light sources 34; light pipe and rotatable operating rod 58; and control knob 50. The end of the control knob is illuminated via the light pipe. The light sources are located outside of the control device and light is conducted via the light pipes to the control knob.

Liao et al does not disclose the specific structure of the knob as being formed with the transillumination area being formed by the knob with a thickness less than that of the rest of the knob such that illumination is allowed to be emitted.

Norris et al discloses in the figures a domestic electrical appliance including at least one control device 10 with at least one display device associated with a light source 44 formed by an LED for providing visual information to the user. The at least one control device 10 including a covering material 30 which for a standard material thickness is substantially opaque and in an area provided for the display device has at least one transillumination area 32 in which the material thickness of the covering material is so reduced compared with the standard material thickness that the transillumination area can be transilluminated by the light of the light sources. The light source is positioned at the back of the control device facing the transillumination area. The transillumination area of the control device is produced by injection molding. The standard material thickness is at least 2 mm and the thickness in the transillumination area is between approximately .3 mm and approximately .5 mm. The user-facing front surface of the device is closed and substantially smooth in the vicinity of the display device. Visible markings are providing on a face of the transillumination area and can be formed by multiple segments. The transillumination area includes additional light-varying or light-conducting devices or light guides 42 which may have concentrators, deflectors, lenses, etc. The light guide is fixed in a non-detachable manner with the control device close to or

directly at the transillumination area. The control device is a push button in which the contacts may be considered sensor elements such that they can be considered to at least zonally surround the transillumination area. The control devices form a panel fixed to the domestic appliance such that the covering material is the panel material and for control purposes there are further actuating devices. The control or operation of the appliance is determined by the direction and/or extent of the movement of the control device. The light source may be considered to at least partly project into the control device.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Norris et al to Liao et al to form the knob by thinning the area forming the transillumination area of the knob relative to the rest of the knob for allowing light to pass because this is for the purpose of providing evenly distributed light through the knob while utilizing a minimum number of parts and maintaining a minimum of manufacturing steps since the thinned area may be made at the time of molding. As for the material of the knob being ABS plastic, this is a matter of engineering design choice based on the materials available to the manufacturer.

9. Claims 1, 19, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinhans et al in view of Norris et al.

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Kleinhans et al discloses a control for an appliance having at least one control device with a transillumination area through which light shines from LED 17. The control device is a capacitive sensing device with no moving parts.

Kleinhans et al does not disclose the transillumination area as being formed utilizing a thinning of material at that location.

Norris et al discloses in the figures a domestic electrical appliance including at least one control device 10 with at least one display device associated with a light source 44 formed by an LED for providing visual information to the user. The at least one control device 10 including a covering material 30 which for a standard material thickness is substantially opaque and in an area provided for the display device has at least one transillumination area 32 in which the material thickness of the covering material is so reduced compared with the standard material thickness that the transillumination area can be transilluminated by the light of the light sources. The light source is positioned at the back of the control device facing the transillumination area. The transillumination area of the control device is produced by injection molding. The standard material thickness is at least 2 mm and the thickness in the transillumination area is between approximately .3 mm and approximately .5 mm. The user-facing front surface of the device is closed and substantially smooth in the vicinity of the display device. Visible markings are providing on a face of the transillumination area and can be formed by multiple segments. The

transillumination area includes additional light-varying or light-conducting devices or light guides 42 which may have concentrators, deflectors, lenses, etc. The light guide is fixed in a non-detachable manner with the control device close to or directly at the transillumination area. The control device is a push button in which the contacts may be considered sensor elements such that they can be considered to at least zonally surround the transillumination area. The control devices form a panel fixed to the domestic appliance such that the covering material is the panel material and for control purposes there are further actuating devices. The control or operation of the appliance is determined by the direction and/or extent of the movement of the control device. The light source may be considered to at least partly project into the control device.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Norris et al to Kleinhans et al to utilize a thinned area for the transillumination area because this is for the purpose of continuing to provide illumination while utilizing materials that may be less expensive.

a. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Howe, Baran et al, Sorenson, Hein, Miyasaka, Mucha, Jung et al, and Denton teach various methods of providing illumination to control panels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael A. Friedhofer
Primary Examiner
Art Unit 2832

maf